THE

VETERINARY JOURNAL

Editor:

FREDERICK HOBDAY, F.R.C.V.S., F.R.S.E.,

HONORARY VETERINARY SURGEON TO HIS MAJESTY THE KING; MAJOR IN THE ARMY VETERINARY CORPS, AND FORMERLY PROFESSOR IN THE ROYAL VETERINARY COLLEGE, LONDON.

DECEMBER, 1916.

CAPTAIN EDWARD SEWELL, M.C., A.V.C.

Born in Ireland in 1889, Captain Sewell was educated at St. Andrew's College, Dublin, and entered the Royal (Dick's) Veterinary College, Edinburgh, in October, 1908, qualifying in 1913. Immediately after graduation he joined the Army Veterinary Corps, Special Reserve, and in 1914 was successful in obtaining an appointment under the Indian Civil Veterinary Department. This position, however, he never took up, as war broke out in August, as he was to have sailed for India in the following October. Mobilising with the Special Reserve, Captain Sewell joined the 40th Brigade R.F.A. at Bulford, and was sent with them to France in August, being present at Mons (where on one occasion he helped to pull the guns out of action under severe fire), Le Cateau, the battles of the Marne and the Aisne, and afterwards with his regiment at Ypres.

In March, 1915, he was selected to command No. 11 Mobile Veterinary Section, a position he still occupies, and was mentioned in General French's dispatches, being awarded the Military Cross in June, 1916, for devotion to duty in the work of his profession when attending wounded horses under shell fire on more than one occasion.

XUM

Editorial.

SAND COLIC.

THE article on sand colic is one which will prove of considerable interest to those who are doing duty with the armies in the field, especially on the eastern side of the war zone. In France and Flanders, too, it is causal factor of much anxiety and many deaths, and the Army Veterinary Officers stationed in certain districts, both French and English, recognise it without difficulty. It is one of the most troublesome agents to get rid of from the intestine, owing to its weight and bulk, and horses have been known to die weeks after their removal from the sand area, a post-mortem examination revealing quantities to be still present in the large intestine.

There is no doubt that the three causes defined in the article are the principal ones, and if they could be overcome cases of sand colic would be few and far between; but the difficulties of always feeding in an hygienic manner under war conditions are so great as to be scarcely appreciated by those who have never seen them. Horses fed off the bare ground without troughs undoubtedly waste a considerable quantity of food, and in picking it up off a sandy soil very often unwittingly acquire a taste for sand, and will eat quite large mouthfuls voluntarily, even when no food is present. It is one of the disadvantages to be guarded against when choosing a site for horse lines, and one which should always be borne in mind. F. H.

THE RIGHT WAY.

PROGRESS on the right way by the best methods leads us to the desirable and profitable goal. Endeavours to advance on the true road by wrong modes bring nothing but trouble, disappointment, muddle, and defeat. Great effort on improper lines is a profitless and useless expenditure of energy and brain sweat. A good start is half the battle, but we want to be able to perceive what constitutes the good start. Organisation, perceptiveness, and ability in any sphere of labour must be factors in producing the finest finished results. Ability exists in plenty among our countrymen, but it is questionable whether the vision that can see and call on this ability to act is prevalent to any great degree. At any rate a consideration of fitness for the job does not always, nor perhaps the most frequently constitute the prime factor in the choice of the

special worker. Nor does expert knowledge on any subject matter appear necessary to enable an ordained chief from giving judgments or opinions on the question.

The judgment or opinion may be all wrong or founded on absolutely incorrect premises, yet it may stand for generations, as a lighthouse (giving no light) or a supposed correct precedent.

We have seen innumerable instances in our history of men with metaphorical D.D. qualifications, busy in diagnosing and prescribing for pleuro-pneumonic states and conditions. The insidious and evil force called influence is perhaps most frequently responsible for the insertion of square pegs into round holes, and the giving of the right job to the wrong person. The shadows of the Great Pretender are reproduced here almost every day in miniature. If the effecting of true advance depends on the right man getting the job, it is equally true that the right man must be backed up with a sufficiency of means to enable him to execute the job well. Men cannot win a war without food and guns. Food and guns cannot be produced without labour and money. A good start and steady progress can never be made without adequate equipment. Those who supply as well and those who consume must have a good knowledge of the work in hand, and what it requires humanly and materially.

Apart from backing the wrong horse, we in this country have most frequently come to grief in not feeding and grooming the right horse sufficiently. Agriculture, commerce, and administration have been made the playthings of politics instead of being looked on as vital necessities of the nation—national and not party questions. In many cases the downfall of desirable movements has been brought about chiefly by poor fiscal methods and plans badly laid. Educational moves have frequently gone glaringly astray, but fiscal operations badly conducted have also much to answer for, and have produced quite as many shipwrecks.

A good impetus is necessary to carry any movement far, the getting up of the impetus is work for giants or slave-drivers. If you tell a poor man that if he does not work he must starve, he will probably work. He clings to life, but the driving force is not great. If you inform a house-owner that he will lose his house unless he defends it against some destroyer he will promptly take measures to preserve it. If you convince a man he will lose

XUM

his liberties and his country unless he makes cause against the enemy he will go whole-heartedly into the contest. The whole-hearted impetus must be carried into National affairs if we are to continue to exist and progress.

In our own profession we have frequently been ignored by the givers-out of jobs. We have often seen positions which we ought to have been asked to fill given to outsiders. We have witnessed many a time the right job being performed by the wrong man. Money and effort have been wasted and no wholesome lessons learnt. It is quite a pleasure therefore to read of an expedition in research being put in the hands of the right people. We are informed that a move is to be made into the investigation of joint-ill by a committee of scientists, medical men and well-known veterinary surgeons. We trust the veterinary surgeons will take a firm hold of their end of the stick and that the factors in any successful advance as indicated herein will be borne in mind. Scotland is the home of this movement, but then Scotland has frequently managed to point the right way and to travel in it.

G.M.

ON GOING SLOWLY.

When one is whizzing along in an express train one catches only fleeting views of the landscape, when one travels by motor-car one sees more of it, when one drives in a vehicle one surveys more still, and when one walks it may be discerned best of all. If the countryside is dull and uninteresting, the sooner we are through it the better. If it is fascinating, grand, or picturesque, walking has its avantages over faster modes of progression. We can see more of the beauties of nature, we can examine them more closely, and, finally, make a more perfect study of them. So in intellectual and scientific fields going slow may lead to better exploration of the region travelled and sounder deductions from the problems studied. We suppose that at present few veterinary surgeons are busier than they were before the war. Those whose lot is not cast in close proximity to a military camp will be worse off than their more fortunate fellows. Slackness of work, however, need not cause us to give way to dark forebodings or to mourn unduly. The sunshine will come again. It is questionable whether when working at full speed, with few leisure moments on hand, we do ourselves or our profession the

greatest amount of good. In present circumstances we can be philosophers, and spend our time in studying the cases we have more closely, in thinking about them, and round them, and recording our experiences for the good of our fellows and the benefit of the profession. A time of going slow ought to be a time of healthy progress and production. Fast investigation and research are very often false and illusory. The soundest work is often of slowest growth.

The great Frenchman, Rousseau, wrote a passage which, translated, reads: "It is difficult to think nobly when one thinks only to get a livelihood." In leisure moments we can think nobly and profitably. In a well-ordered mind travelling slowly may lead to intellectual stimulus, and should not bring about degeneration, inertia, or decay. We need not be dull because we are not busy. It is better to read much, think frequently and write often, than be classed as a dullard or a mere self-seeker. We had rather make mistakes with Johnson, who, when asked by the old lady why he had described "pastern" as "the knee of a horse" in his dictionary, replied briefly, "Ignorance, madam; sheer ignorance," than be among the dull and unproductive people who are said to be very happy because "they neither write themselves nor are sensible of what other people write."

G. M.

Editorial Note.

We are publishing in this number a short communication on the National Herb-Growing Association. The revival of systematic collection, cultivation, and marketing of medicinal and sweet herbs as a rural industry is an object that should appeal to us. Prior to the war this trade had been practically killed by German competition. We are indebted to E. L. Chamberlain, F.R.H.S., for the communication, and think it will interest our readers.

XUM

Original Communications.

THE VALUE OF THE INTRA-DERMO PALPEBRAL METHOD OF MALLEINISATION.

By FREDERICK HOBDAY, F.R.C.V.S., Honorary Veterinary Surgeon to His Majesty the King; Major, Army Veterinary Corps.

In July, 1915, by the courtesy of the French Army authorities, Professor Douville (*Vétérinaire Aide-Major*) demonstrated to Brigadier-General Moore (Director of Veterinary Services) and a group of English veterinary officers, the method of application of the intra-dermo palpebral use of mallein as employed throughout the French Army. A note of this was published in the Veterinary Journal at the time (Veterinary Journal, August, 1915), and the Director of Veterinary Services was so favourably impressed that this method of testing was given a thorough trial. The trial was so satisfactory that it has now become the universal test, in preference to all others, and considerably over two million doses have been used.

Its advantages over the subcutaneous cervical method are especially noticeable in times of war and where exceedingly large numbers of horses have to be speedily tested. In the first place, it is of great advantage to reduce bulk of material carried or sent about, and it is easy to see that 5,000 or 10,000 doses each of two minims occupy less room and are of less weight than 5,000 or 10,000 doses each of 18 minims.

Then, again, the result is much more readily seen, for it is only a matter of quite a few minutes to inspect 200 or 300 horses when one has only to glance at the eyes. Swelling in the region of the eyelids is so much more perceptible than swelling in the subcutaneous region of the neck.

Thirdly, the test itself is a more delicate one than the subcutaneous neck method, in that the reaction is more violent and more rapid. No temperature testing is necessary, and the saving of time and trouble in this respect is enormous.

Fourthly, the cost of a dose of the intra-dermo-palpebral mallein is about one-eighth of that of a dose of the neck mallein.

Fifthly, it is much easier of application, and can be done much more rapidly—a consideration when doing hundreds of horses daily.

After nearly eighteen months' personal experience on thousands of animals, the above points are verified, and the method is the one much preferred.

Briefly, for the benefit of readers who are even yet not familiar with the technique, I will again describe it, associating with it the names of Veterinaire-Major Lamarque (who was the pioneer of its use in the French Army), Professor Douville (of Lyons Veterinary School), and M. Victor Drouin (formerly Assistant in the Alfort Veterinary School, Paris).

The application is made by means of a small 1 c.c. syringe (Strauss-Colin pattern is one of the most convenient) with a supply of fine sharp needles.

The mallein used is of 1 in 4 concentration (malléine brute 1 part, 5 per cent. carbolic acid solution 3 parts), and is supplied in small tubes containing twenty doses, or more if asked for.

The usual sterilisation precautions as regards the syringe are adopted, the cost of the apparatus being only a few francs. In our case we use a mug or other vessel full of water kept boiling by the aid of a small spirit stove, the whole being conveniently protected from the wind by being carried in an ordinary stable bucket. I have never yet seen a case of septic infection of any sort, and this is all we have done in thousands of cases. The horses are drawn up in a row, and the operator commences at the bottom of the line facing the left eyes. He has previously arranged for the help of four, or even six, smart fellows with twitches, in order that he may not be kept waiting. Although it is quite possible to do a hundred horses without the use of a twitch, it is always better for one's own safety, when dealing with strange horses, as well as for rapidity and certainty of working, to have one's assistants thus equipped.

The twitches are applied preferably to the right ears, and the operator, having filled his syringe, commences to walk along from horse to horse, carefully and deliberately giving to each one two minims intra-dermally in the under eyelid, about the centre, but slightly inclined to the inner canthus.

He proceeds from horse to horse, doing them at the rate of three or four a minute easily, his assistants with the twitches following on after one another as speedily as possible. If one has a troublesome horse, it is better to set it aside to be dealt with

XUM

at the end, when it can be removed from the company of the others, and is usually amenable.

The eyes are inspected in about twenty-four hours, and the horse can, if urgently necessary, be worked whilst the test is in operation. The subjects should be seen again about the thirty-sixth or forty-eighth hours before an absolutely definite decision is arrived at, although in the majority of instances twenty-four hours decide it. If seen within three or four hours, many horses show a slight swelling of the lid, but this is not the characteristic swelling of glanders.

Fig. 1.
Side view showing the reaction after injection into the lower lid of a glandered horse.

Fig. 2.
Front view of a "reactor." Note the muco-purulent discharge from the inner canthus.

These photographs have already appeared in the VETERINARY JOURNAL, 1915, and are published by the courtesy of Professor Douville. They are absolutely typical of what has been seen many times since the first article was published, and are republished owing to the restriction upon the use of the camera in the war area having prevented the taking of other photographs. F. H.

Should the animal be healthy, at the twenty-fourth, thirty-sixth, and forty-eighth hours there will be nothing abnormal observable and no swelling. On the other hand, should it be glandered, the eyelid at the first inspection has become very visibly swollen, the eye being closed or half closed, and a discharge of

mucus coming from the inner canthus. Generally both eyelids are swollen, and with a violent reaction the eyeball is completely hidden. The swelling is characteristic, closing up the orbit to a more or less degree, and being excessively tender. If the animal is kept alive, the swelling extends downwards over the supra-maxillary region, and there may be a cording of the lymphatics extending to the sub-maxillary gland, which is swollen and tender.

This swelling, which is readily distinguished from an ordinary œdema of the eyelid, persists in a glandered case for three or four days, and in the meantime, if there is any doubt about the case, confirmation can be obtained by the application of the test intra-dermally to the other eye. This should be done within forty eight hours—the sooner the better—and the reaction here obtained will be equally good. If preferred, as a control test, instead of using the eye mallein, a confirmatory subcutaneous neck test may be made with the ordinary mallein supplied for this purpose. If this is done within forty-eight hours, a good reaction here will be obtained, although I have seen cases in which the neck reaction has not been sufficient upon which to give a positive diagnosis, whereas the eye reaction was positive, and the post-mortem examination has confirmed the presence of glanders lesions.

Finally, there is no question, in my opinion, as to which method is the best to use in dealing wth large numbers of horses, such as is the case at the present time. The convenience of transport of the dosage, the convenience of administration when one has given a few doses, the great advantage of visibility for the subsequent inspections, and the more marked reaction to be obtained in the delicate tissues which surround the eye, and the fact that there is no need to take temperatures, give to the intra-dermo orbital method a superiority over any other method which has, up to the present, been brought before the profession.

THE EFFECT OF HEAT, BURNS, AND SCALDS IN THE HUMAN SUBJECT AND DOMESTICATED ANIMALS.

By FRED. C. MAHON, M.R.C.V.S.

THESE conditions in human practice are fairly common, but in the province of the veterinary uncommon. We chiefly find such affecting the domestic pets, as dogs, and cats, in whom,

XUM

too, the hairy covering affords some slight protection as compared with the human, whose protection through clothing under civilised conditions resembles that of these animals.

I have chosen the subject because I have occasionally encountered some severe cases in the dog and cat, not only from boiling water being accidentally spilled over them, but such agents as lime, hot oil, tar, carbolic acid, turpentine, etc.

Human Subject: Division.—The most useful division for practical purposes is that which has long existed—*viz.*, first, burns producing mere redness; second, those causing vesication; third, those causing death of the part.

1. The first class is followed in the human patient by superficial inflammation, terminating in resolution, with or without desquamation of the cuticle, the pain resembling that of the original sense of burning.

2. In the second class there is a higher degree of inflammation, causing the cutis to exude serum, and form vesicles. These in trivial cases dry up and heal, but if the injury to the cutis has being sufficient to cause it to suppurate, they will be succeeded by ulcers.

3. The third class of burns is attended with mortification from disorganisation of structure. They are, for obvious reasons, not attended with so much pain as the second class, but in every other respect they are infinitely more serious, and the sores which remain after the separation of the sloughs are often months, or years, in healing.

Constitutional Symptoms.—The constitutional symptoms of very severe burns are those of great collapse. The surface of the skin in human subject is pale, the extremities cold, the pulse quick and feeble. There are violent and repeated shiverings, and the patient often complains most urgently of cold. In some fatal cases these symptoms are soon succeeded by laborious breathing, suppression of secretions, coma, and death. In others dissolution is preceded by a period of imperfect reaction, with delirium, and a sharp, jerking pulse.

Prognosis.—Extensive burns, even of small severity, are always dangerous, and especially if vesication has occurred early, and the cuticle has been stripped off. Burns on the trunk are always more dangerous than those of an equal extent on the extremities.

With regard to the symptoms actually present it may be noticed that, although the severe pain, such as is common in burns of the second class, is in itself a source of great danger from its tendency to exhaust the vital powers; still it is, on the whole, a favourable sympathy if the injury is extensive. Apathy and stupor indicate urgent peril.

The periods of danger in burns are three: First, during the first five days from collapse, or imperfect reaction; second, during the sympathetic fever which follows, in which the patient may sink, with an affection of the head, chest, or abdomen; thirdly, during the suppurative stage, in which he may die from the profuse discharge or from debilitating diseases induced by it.

Kenlish observed that many cases prove fatal on the ninth day.

Morbid Anatomy.—A post-mortem examination readily accounts for the coma and laborious breathing, which are such constant symptoms of fatal burns. Congestion and serous effusion are found on the surface, and in the ventricles of the brain, and the air-cells of the lungs are loaded with a thin serous or muco-serous fluid.

It was shown by Mr. Gurlong [*Med. Chir. Trans.*, Vol. xxv.] that severe burns may be followed by an acute ulceration of the duodenum, liable to terminate fatally by perforating the intestine and causing peritonitis, or by opening some large artery and causing effusion of blood, part of which may be evacuated by vomiting and purging. Mr. Humphrey has also noticed ulceration of the lower part of the œsophagus. The bleeding usually comes quite suddenly and without warning.

In the causes of inflammation, Dr. Brown Sequard explains the ulceration of the duodenum which follows burns by injury to the peripheries of nerves, causing morbid changes, at a distance, by a kind of reflex action. This seems a very rational view in considering the case.

Treatment.—The treatment of burns in their early stage have been a matter of great dispute. Some eminent surgeons [*Earle's Lectures on Burns*, London, 1832] have advocated ice or other cooling application; others the use of turpentine and other stimulants. The latter plan of treatment was advocated by Mr. Kenlish, of Newcastle, at the beginning of the present century. The following, however, seem to be the principles of treatment

XUM

deducible from the conflicting theories and practices which have been proposed—viz., firstly, that the first application should be of a mildly stimulating nature. Secondly, that after the first two or three days they should be soothing, till, thirdly, slight astringents may be applied to expedite the healing; and fourthly, that the part should throughout be most carefully preserved from the atmospheric air, from cold, and from bad odour. If these principles are held in view, the surgeon will have no difficulty in finding appropriate remedies.

Constitutional Treatment.—Collapse must be met by brandy and beef tea. If there be much pain it should be controlled by opium.

Treatment of the remaining Ulcers.—The ulcers resulting from burns are often extremely intractable. The granulations are pale, flabby, and exuberant, they secrete pus profusely, and many months often elapse before they are healed. The cause of this disinclination is not very well understood, but there is one cause which may be easily remedied—viz., too full a diet, which is often needlessly used on the plea of supporting the strength. "There can be no doubt" that full diet and stimulants, during the suppurative stage, keep up irritation in the system, and cause the immense continued discharge by the exposed surfaces of the wound. (*Burns's Second Essay*, Newcastle, 1800, p. 64). And it is equally certain that many cases will rapidly get well when the diet is lowered and purgatives are administered. The binding down of the edges of the ulcer to the condensed tissue beneath is another cause of delay. If the ulcer is irritable and painful, or hot and swelled, or seems inclined to spread, or if small abscesses threaten to form under the skin, poultices or water-dressing sedatives and aperients should be resorted to. If sloughs are tardy in separating they must be treated like the sloughing ulcers. When the irritable state is removed a succession of mild stimulants and astringents will be advisable, especially the zinc lotion, chalk, bismuth, or calamine ointment, simple lint, and pressure with strips of plaster. When the discharge is profuse the sore should be constantly kept thickly covered with very finely powdered chalk.

A very useful application in cases requiring gentle stimulation and complete occlusion of the air, is a mixture of equal parts of balsam of Peru and olive oil, brushed over the surface smoothly with a soft brush every morning and evening. It has the advantage of partly overcoming the fœtid smell.

Treatment of the Cicatrix.—The cicatrix of very severe burns is very liable to become excessively hard, dense, and cartilaginous, and to contract in such a way as to occasion the most serious deformities.

Thus the eyelids or mouth may be rendered incapable of closing, the chin may be fixed to the breast, or a limb be rigidly or immovably bent. This constriction may be sometimes successfully opposed by keeping up extension with a splint, or if the neck be partly burnt, by making the patient wear a stiff collar, and by frequently moving the part during cicatrization, and the cicatrix may be lubricated with oil.

If the fingers are severely burnt, lint should be interposed between them, and they should be kept apart as much as possible; although it will be very difficult to prevent them adhering together.

When any of the orifices of the body are involved, they should be kept diluted with cannulæ or plugs of oiled lint.

But if, notwithstanding every precaution, the cicatrix contracts, and produces deformity, or prevents any necessary motion, the knife should be resorted to. Sometimes the whole cicatrix may be extirpated, the wound being treated by water-dressing, and the parts kept in a proper position during the cure.

Now, as veterinarians, our patients do not admit of quietude, as, for example, in cases occurring in canine and feline practice. In the horse we find docile patients at times, lastly, but patiently quiet, comes the bovine. In the latter, save by malicious use of caustics or vesicants, we rarely encounter conditions requiring treatment. I have, however, had a few in my experience—*e.g.*, those due to acids: sulphuric, nitric, and hydrochloric; caustics: metallic salts, silver nitrate, butter of antimony. These agents are used by quacks, and the ignorant very often, and cause great destruction of animal tissues.

In the dog and cat, burns from live coal, dropping by accident of boiling water, the too frequent use of lotions and liniments

with turpentine, mercurial preparations in skin diseases, ammonium chloride of mercury have come under my notice at various times.

Water nearly boiling is a prompt and powerful counter-irritant, especially in cattle practice. I saw two very bad cases in 1884, at Bridgewater, when studying "Cattle Practice" with the late Edwin Ware, M.R.C.V.S., of that town, and where the skin was severely injured, with grave local and constitutional results.

In our patients formerly carron oil was the remedy for most burns and scalds (lime water with linseed or olive oil—aä partes).

In modern days various new remedies have been used in burns and scalds such as collodion, antiphlogistine.

Thermofuge, this latter agent, has proved a boon to me for some time past, as an antiseptic, emollient, and derivative.

It is an efficient substitute for poultices, compresses, or fomentations, and the application obviates the continuous attention needed, and formerly given to patients, both human and animal. Huxley's antiseptic plasma dressing I have also used in practice with good results.

Chloretone, or boro-chloretone, is also used; it induces active reparative processes, aids absorption of exudation, or induration, and above all relieves pain.

Lastly, grafting, as practised in human practice, has not apparently found vogue with us, as I cannot find any references to the same in veterinary literature, but it may have been employed by some, and recorded, and escaped observation for the moment.

In the *Medico Chirurgical Translations*, Vol. XLVI., p. 149, there is an interesting case recorded of such being done extensively by a Mr. Wood of King's College Hospital, and numerous cases are in record in modern works (Human), and current literature—*e.g.*, *Medical Times Lancet*. Should be pleased to know if any of our leading canine and feline surgeon specialists have performed the operation of late years, and with what results. I know quite well the difficulties in our patients are two-fold compared with that of the human surgeon.

As burns and scalds produce grave shock, I am in the habit of using pituitrin and adrenalin.

I use Burroughs, Wellcome and Co's Vaporole "Infundin," Pituitary (Infundibular Extract 0.5 c.c. and 1 c.c.), both intra-

muscularly and per rectum, as occasion demands. The subject here treated is a very interesting one, and its rarity compared with the many diverse complaints of our patients "is my apology for the Resume," which I trust may be of some interest, at all events, to many in the profession, and prove instructive, if not useful. I have penned these lines in a few leisure hours, feeling that I am filling a gap in veterinary periodicals, although prevented by age from doing my share in the arena of warfare. I work and travel on and learn "to labour and to wait," and strive to leave behind me "footprints in the sands of time."

EXPERIENCES OF A VETERINARY OFFICER AT THE FRONT.

During one of the recent bombardments I was ordered to a village under shell fire to attend some horses, and afterwards went on to where they were cleaning up the scene of a recent fight. The dead bodies of both English and Germans were lying about everywhere, and the piles of rifles and equipment were being collected by the Salvage Corps. The place was still being shelled, and the stretcher-bearers were bringing in the wounded. At nightfall I returned to the village where my billet was. About 10.45 the Germans started shelling us, and we all made for the cellars.

One of my brother officers, a very popular man in the regiment, collected four of his men, and was placing them in a cellar just opposite Headquarters, where I happened to be. I saw him order his men to descend the cellar steps, and he himself prepared to follow, when suddenly a shell descended full in the entrance and killed the whole lot. He was one of the best of fellows, and his death in my presence was a great shock to me. I myself did not go to a cellar, but went to my Aylwyn Hut, where I sat on the edge of the bed and chatted with two other veterinary officers, who, stationed close by, had come into the village on business, and were unable to return on account of the whole of the road being heavily shelled.

Suddenly a shell burst within thirty yards of the hut, and killed twelve horses outright, a fragment coming right through

the roof. The concussion knocked the three of us down to the ground, but did not make us unconscious, although we were dazed for a time.

One of my comrades wanted to go out of the hut, but I persuaded him that to go out into the darkness would be madness, especially to attempt to travel along the road, and eventually we all sat and waited until daylight. The three of us suffered very much from shell shock, and were for a time involuntarily trembling, our nerves being greatly upset.

The next morning the Headquarters of the Division moved on to another position, but I was left behind with the Mobile Veterinary Section, remaining there for about a fortnight.

As I had no special cellar allotted to me I went to the Medical Officer, who had a dressing station in a dug-out on the opposite side of the road, and he persuaded me to lie down in a corner of his place. Wounded men were being brought in constantly, and I laid down on a stretcher that night amongst the dead and dying. The heat and the smell were stifling, and I could not sleep, still being overcome by the effects of shell shock and the terrible sight which I had witnessed, and which had involved the loss of my dear friend. Presently a padre entered with a lantern and administered comforts and refreshments to the wounded, taking the last requests of the dying. When he came near my stretcher, the blankets being right over my head, he said, "My dear fellow, what can I do for you?" I replied, "I want a drink." He gave me some brandy and water, and I laid down until morning, when I went on to another spot, about half a mile further away, on a hill. From here I had a splendid view of the bombardment both night and day, and a most wonderful and terrible sight it was.

I was there for over three weeks, until the division moved out of the trenches, when we all went further back out of the firing line for a rest. After three days we returned again to the trenches in another part of the line, and a short time afterwards I was relieved by an exchange of officers, and I myself went down to a veterinary hospital. A.V.C.

JOHN VINCENT HOLLAND, M.R.C.V.S.,
LIEUTENANT, ARMY VETERINARY CORPS, WHO HAS BEEN AWARDED THE VICTORIA CROSS.

Clinical Cases.

CYST OF THE EPIGLOTTIS IN A HORSE.

By FREDERICK HOBDAY, F.R.C.V.S., Major, Army Veterinary Corps.

THE unusual occurrence of a cyst in this region makes the case worth putting on record, especially as the symptoms produced were of an exceptionally severe and alarming character.

The patient, a cart horse, was evacuated to hospital, without any definite diagnosis.

The history given was that the animal would suddenly stop, stare around wildly, throw up its head, show difficulty in swallowing, followed by dyspnœa, and then fell over in a semi-conscious state. After lying on the ground for a few moments, it would rise, and apparently be all right. This occurred quite independently of feeding time, and generally upon walking out.

Stenosis of the œsophagus, or an œsophageal pouch, were each suspected, but exploration gave no confirmation, and upon examination of the back of the pharynx with a mouth speculum a cyst about the size of a tangerine orange attached by a fair pelicle, could distinctly be felt. This explained the whole thing, as the cyst was able to roll back across and into the laryngeal opening, and cause dyspnœa.

An ecraseur chain was passed over it (Captain Leese, A.V.C., being the operator), and the removal was easily effected. The result was a perfect success.

A LONG ILLNESS.

By J. H. PARKER, M.R.C.V.S., Faringdon.

ABOUT ten weeks ago I was called to see the shire stallion "Marden Hotspur," aged 3½ years, and insured with the Yorkshire Company for £750. I found him to have an attack of laminitis, with a temperature of 106 deg. He seemed to quite recover in about two days. A fortnight later was asked to see him again, as he was not doing well. Found him to be losing condition, was sleepy, pulse 60, but regular, respirations normal. Temp. 103 deg. Knees and hocks swollen. Urine passed

in small quantities. Appetite fairly good. He kept more or less in this condition for about six weeks, but was gradually losing flesh and getting tucked up at the flanks. Every time I visited him I remarked that he was getting poorer. On giving an unfavourable report to the company, they sent their veterinary surgeon in consultation with me three times. The first two times he frankly admitted that he did not know what was the matter with the animal, but the third time he came he was convinced that he had got an internal abscess, and suggested streptococci and staphylococci injections. He was of the opinion the horse would recover. However, he did not improve, so I reported again. Then they sent a well-known specialist to see him, which he did about ten days before the horse died. By this time the horse had developed a jugular pulse and clear symptoms of heart disease. He diagnosed "Heart disease, slight pleurisy, and urinary trouble," and said "with proper treatment he ought to make a good recovery." His suggested treatment was adopted. The horse dropped dead on Monday morning, October 30th. A P.M. next day showed heart to be enlarged, soft and flabby. Well-marked vegetation on the ventricular valves, especially the mitral. Lobar pneumonia in the anterior lobe of the right lung about the size of a man's fist. This was consolidated and in a state of grey hepatisation, evidently of some standing. The rest of the lungs were quite healthy. The right kidney was much enlarged, and showed chronic inflammation, its substance being friable and rotten. This condition, I thought, might account for the scantiness of the urine passed for the last month. The attendants on the horse and myself were quite of the opinion he was going to die.

NEUROMA OF THE FIFTH PAIR OF CRANIAL NERVES (TRIGEMINAL). PARALYSIS OF THE MASSETER MUSCLES.

By R. HUDSON, F.R.C.V.S., Retford.

THE subject was a three-year-old pony about thirteen hands high. The pony had been at grass during the summer and not handled for two or three weeks. It was observed by its owner to be getting thin and inclined to mope about, so he brought it into the stable and attempted to feed it on various foods, but it

took very little. With the exception of an appearance of emptiness about the flanks the pony appeared in fairly good condition, pulse and temperature being normal. On passing my hand into his mouth I found he had lost all power to grip, the masseter muscles being paralysed. The under lip did not hang, showing the paralysis had not involved the muscles of the lips, nor were the buccinator muscles affected, for the animal was able to take up liquids. The lips and buccinator muscles are supplied by the seventh pair with motor filaments.

Diagnosis pointed to trouble of a central origin, involving the 5th pair of nerves, but, the animal being only three years old, I was doubtful as to tumours being the cause.

There was no evidence of injury. Treatment consisted of Liq. Strychnia and Pot. Iodide given in gruel, and was carried on for a fortnight, when I advised the owner to have him destroyed.

The owner carried on for a fortnight afterwards, when one morning he found the pony dead. He sent me the head, and reported that he had improved very much in condition on gruels.

Examination of the brain revealed an enlargement on each trifacial nerve between the root and the wall of cranial cavity. The enlargements were of a fibrous nature, blending with the dura mater and nerve sheaths. On one side the growth was as large as a walnut, on the other a little less.

IMPERFORATE HYMEN.

By J. H. RIPLEY, M.R.C.V.S., Hurst Green, Sussex.

Subject.—Dark roan cross-bred heifer (mostly shorthorn), age about twenty months.

History.—I owned this heifer for about five months during the previous year, and, seeing her daily, can be sure of her being then in apparently perfect health.

Her subsequent owner had her served three times, and each time after coition some blood was discharged and continuous straining followed. These conditions became more marked after each service, and ever since the third service the straining was practically incessant.

Treatment.—On being called to attend the animal I examined her per vagina and per rectum. The rectal examination revealed a huge mass, the end of which was reached when the hand and arm were about one and a half or two feet inside the rectum.

The genital opening was small, and the mass was touched with some difficulty. A cannula was first guided into position and the trocar then introduced. When the heifer made her next straining effort the instrument was thrust forwards, which was followed by the discharge of from two to three gallons of fluid with the distinct odour of a cow's afterbirth. Twice subsequently I had to see the heifer, and to complete the first treatment by tearing down adhesions and enlarging the opening.

During her recovery the end of her tail sloughed off.

When last I heard of her she had been in quite good health and comfort for some months, and was then sold to be fatted at grass.

TUBERCULOSIS IN A CART MARE.

By G. MAYALL, M.R.C.V.S.

A BAY cart mare 12 years old had been gradually falling away in condition for about three months, and when being shod had occasionally fallen down. When first my attention was called to her I noticed slightly increased respirations and a temperature of 102°. She was rested for a week and some fever medicine given, and was put to work again. She ate well, as indeed she did all along. After working for a fortnight, during which time she was very sluggish, lacking in life, and getting gradually thinner, she was again thrown off work and isolated. On examination at this time I found a temperature of 103° and pulse of 56, respirations 24 and shallow, there was great tenderness on pressure over the third cervical vertebra, respiratory sounds absent in left lung, and on examination per rectum I could feel what I considered to be a nodular spleen and enlarged mesenteric glands. On November 3 and three following days pulse, temperature, and respirations remained the same, and mare was making a lot more urine than normal. I reported my suspicion of tuberculosis, and as the temperature remained high, and did not give much chance of any useful employment of the tuberculin test, I decided to collect some of her urine and test it according to Ehrlich's diazo reaction (an account of which I had read in the *Veterinary Record* for November 27, 1915, in an article contributed by Mr. G. Gair, M.R.C.V.S.). I passed the catheter and got a 2 ounce bottle full

of the mare's urine. I mixed some of it with the sodium nitrate and sulphanilic and hydrochloric acid solutions, as described in Ehrlich's test, and added 5 drops of ammonia solution and shook the mixture well up. The urine was at once coloured red, the foam was lighter coloured, but, on standing for 24 hours, no blue, green or black colouration of the upper portion of the precipitate was shown. However, taking the results of this test along with the clinical symptoms shown, I felt pretty confident that the mare was tuberculous, and advised her slaughter.

This was done. The *post-mortem* showed: Caseous consolidation of both lungs, only a hand breadth of lung tissue at the base of each lung appearing capable of performing respiratory functions. The spleen was studded with tubercles from the size of a walnut to that of a russet apple, the mesenteric glands were enlarged and cheesy, and the third cervical vertebra and the fifth dorsal vertebra had been attacked by the disease and were inflamed, enlarged, and necrotic. It was a matter of surprise that the mare worked as long as she did do and did not lose more condition. During the last four days of life she never lied down.

For the benefit of those who are not acquainted with the diazo reaction, particulars are herewith given.

For the performance of the test two solutions are necessary.

1	Sodium nitrate	0.5
	Aquæ dest.	100.0
2	Acid sulphanilic	5.0
	Acid hydrochlor.	50.0
	Aquæ dest.	1000.0

Two c.c. of the first and 98 c.c. of the second solution are mixed.

The reaction is carried out thus:—Ten to fifteen c.c. of urine are treated in a test tube with an equal quantity of the reagent, shaken vigorously until a foam is produced, and then about one c.c. of ammonia is added. The reaction is positive if the foam and liquid are both coloured red. Normal urine is only coloured yellow by the test. After 24 hours standing a positive test throws down a precipitate, the upper portion of which is blue, green or black.

As given by Mr. G. Gair, in the non-metric way, the test reads as follows:—"Prepare two fresh solutions: (1) a saturated solution of sulphanilic acid in 5 per cent. of H.Cl.; (2) 5 per

cent. of sodium nitrite. To five c.c. of urine add an equal quantity of solution 1; then add a few drops of solution 2, and shake till frothy; add ammonia till alkaline. A positive result is indicated if the liquid acquires a port wine colour and the froth at the same time becomes red."

We think the test is a very useful one in some cases where tuberculin cannot be properly applied. We shall be glad to hear from other practitioners who have used it.

CYANIDE OF POTASSIUM POISONING.

By G. YATES, F.R.C.V.S., Harrow.

CALLED out early one morning last month to see a terrier said to have been suddenly taken seriously ill. On arrival, elicited the following information, *viz.*, that the maids, on coming downstairs that morning (6.30 a.m.) discovered that during the night burglars had paid a visit to the premises, gaining entrance through a barred window in the basement, and had evidently been disturbed, leaving their booty, silver plate, etc., all ready arranged for removal.

The presence of several pieces of meat strewn about the kitchen floor did not excite their suspicion, as the terrier at this time appeared quite well and in his usual spirits. At seven o'clock, however, symptoms of illness became apparent. The dog appeared in a condition of utter prostration upon my arrival, in fact, almost inanimate, pulse barely perceptible, extremities deadly cold, and respirations shallow, although consciousness still remained. Owing to the patient's mistress being seriously ill at the time, the telephone message gave me no particulars, so consequently was unprepared. Upon returning later with the necessary antidotes, the terrier was almost moribund, and passed away at 8.30 a.m.

The pieces of meat, upon examination, were found to be of horse flesh, cut into thick, square portions, a central circular piece having been skilfully cut out, the poison inserted, and the piece replaced. Of the pieces distributed about the floor each contained in its centre a small crystal the size of a pea or very small bean. Its nature could be readily determined by its smell, which was verified by two chemists to whom I submitted it, and who readily recognised the substance to be cyanide of potassium. This case brought vividly to my mind an instance of suspected poisoning I

encountered a year ago of two very beautiful dachshunds, belonging to a client, that died under similar circumstances, showing exactly similar symptoms, but in this case no clue was discovered, a post-mortem examination being prohibited.

This being the first instance of poisoning by cyanide of potassium I remember encountering, I was struck by the extraordinary symptoms shown, the apparent lifelessness of a still conscious animal and the death-like coldness of the whole body. The detective in charge of the case informed me that in his experience he had never before met a case of the kind, and that it must have been the work of expert burglars, whilst the chemists say that cyanide of potassium is readily procurable upon the pretext of destroying wasps.

VESICLE CALCULI IN THE CAT.

By G. YATES, F.R.C.V.S., Harrow.

I HAD the opportunity of examining a cat and watching the course of events that I had had under occasional treatment on and off for a period of two years. At these times a difficulty had been experienced in the passage of urine, and catheterisation resorted to, affording relief on each occasion, together with the after administration of lithontriptics. Latterly, upon removal of the urine it was found to be blood-stained, containing in it small gritty particles of sabulous material which could be readily detected by the fingers. The presence of blood in the urine at this stage suggested cystitis, and a diagnosis was given accordingly. A few days subsequently I was requested to visit again, and found my patient to be suffering from uræmic poisoning, when the owner, at my suggestion, agreed to its destroyal.

Post-mortem examination revealed the presence of several small calculi in the urethra. The bladder gave a doughey feel upon manipulation, and externally bore no resemblance to that organ in health; its walls, upon incision, were found to be greatly thickened and devoid of urine; the mucous lining was greatly inflamed, and embedded in this were found about forty small calculi. The ureters appeared normal, and the pelvis of each kidney quite free from any sabulous material.

The cat was a neutered one. Similar cases I have encountered have also occurred in these, and the question arises as to whether such animals are more prone to this affection, and, if such is the case, what is the causal factor?

XUM

Translation.

SAND COLIC.

By F. FRIEZ.

MANY losses from sand colic in horses have been recorded by veterinary surgeons since the beginning of the war. The chief feature of the cases has been an accumulation of sand at the level of the pelvic flexure of the large colon. I have investigated 58 cases in three months, and I have experimented with a method of treatment, based on the localisation of the sand, which has given me very appreciable results. For this reason, and in order to diminish fatalities due to this variety of colic, I am publishing the results. A study of the facts is necessary, in order to understand this kind of colic.

Etiology.—Different causes have been invoked to explain the presence of sand in the intestine:—

1. *Pica*, due generally to that which a horse eats insufficiently, or to the ingestion of substances of little nutritive value. This makes our heavy commandeered horses veritable granaries of forage which, not having sufficient intestinal ballast, swallow all that is carried to them to supply this intestinal void. Horses working too hard and not having sufficient maintenance ration, experience the need of ingesting earth or even their own droppings.

2. Another origin of sand rests in the fact of giving oats on the ground, so that the horses ingest particles of earth and sand at the same time as the oats. Again, if one gives oats in the troughs, the horses raising their heads when masticating let fall from their mouths grains of oats impregnated with saliva which collect on the soil particles of earth which the horses afterwards ingest at the same time as the oats.

3. Muddy water, in my opinion, is one of the most important causes. In different occupied provinces I have been able to ascertain that the water at the watering places deposits a certain quantity of sand, and when it rains, this water becomes very turbid. In certain provinces the water was absolutely muddy when it rained; normally, it deposited from 1 to 2½ ounces of sand in 2 gallons of water. Besides, as we shall see, sand formed at the autopsy seems clearly to prove muddy water.

4. A note may be made of dirty, dusty hay, and oats containing foreign matter.

Symptoms.—After the first case of death from this form of colic the attention of the practitioner should be called to fresh cases that he observes. The symptoms, according as the obstruction is incomplete or complete, are particularly characteristic.

1. *Incomplete Obstruction.*—In this case the horse shows dull, intermittent colic absolutely analogous to the colic of impaction. He crouches, gets up, crouches again, but his agitation is not very intense. That which is characteristic is the attitude of stretching out as if to urinate, which the horse assumes every moment; he remains sometimes for a very long time in this position, appears to make efforts to urinate deceiving the ordinary person who is assured that the colic is due to the impossibility of making water. Pulse and respiration are normal. At times a little sand is evacuated with the dung. If the horse is treated at the time, the colic limits itself to these manifestations, but they are often aggravated, and we arrive at Case 2.

2. *Obstruction is Complete.*- The stretching-out attitude becomes more and more frequent and is accompanied with groans; the flank swells out, especially on the right. The respiration becomes rapid and deep, the nostrils are extremely dilated, the face drawn, the m.m. of the eye is injected, and the look fixed. The pulse, at first small and thready, becomes imperceptible; the horse dies without great pain. Rectal exploration reveals at the entrance of the pelvis in front of the pubis, a pasty, depressible mass in which one can feel small irregular grains calling sand to mind at once.

Sometimes a small quantity of sand is brought away by injections; the anus and the perinæum are soiled; in this case there is no possible doubt as to the cause of the colic.

Diagnosis.—The first case is always difficult to diagnose, but one must recollect the frequent extended position of the horse as if to urinate. Backraking may be usefully undertaken.

Duration.—Certain sand colics last 8 days.

In grave cases, two hours after the first symptoms the horse dies.

Prognosis.—If the obstruction is incomplete, cure is assured

XUM

if treatment is timely. If the obstruction is complete, prognosis is very grave.

Lesions.—Carcase greatly tympanitic, mucous membrane of rectum often protruding.

General Lesions.—Blood thick, black, asphyxiated, mucous membranes violet tinged.

Abdominal Lesions.—Generally sand is found in the pelvic flexure of the large colon and in greater quantity in the second than third portion of the colon, as if the sand, having made its way in the sterno-pubian direction, peristaltic action was powerless to pass it on into the third portion. When the weight of sand is heavy enough, it presses the pelvic flexure into the inferior parts of the abdomen. The quantity of sand found was variable; the smallest quantity was about 2½ lbs., the largest about 26½ lbs. The sand found was granitic sand similar to that in the camping places, and it resembled in all points that obtained from sedimentation of the drinking water.

There was never any sand in the cæcum, but sometimes a little in the substernal and diaphragmatic flexures of the colon, as well as in the small colon.

Treatment.—1. Preventive.—Insist on a sufficient ration of hay for heavy horses to furnish them a sufficient intestinal ballast; do not make horses work beyond their production ration. With horses that have a tendency to lick, fasten them short and sufficiently high that they cannot reach the soil, especially at the time of grooming.

2. Do not let them eat oats from the ground; give them in nose-bags or in sufficiently large troughs; in this latter case, when the horses have finished eating, raise the mangers and brush the ground to carry away the oats fallen during the feeding. Whenever possible, pave the ground at the place where the mangers rest.

3. Let the drinking water stand, above all when it rains, at least an hour before giving it to the horses. If the flow of water at the watering-place is continuous, put two square planks across it to facilitate the deposit of sand. Chemical procedure recommended for purifying water is not necessary.

When several cases of colic have declared themselves, it is advisable to immediately purge all the horses of this portion

of the unit. Each horse is purged with 500 grammes of sulphate of soda dissolved in four litres of warm water and mixed with a litre of oil. Purgation is repeated two days after, if evacuation of sand is insufficient.

II. *Curative Treatment.*—When one has diagnosed a case of sand colic according as the obstruction is incomplete or complete, one treats it in the following way:—

1. *The Obstruction is Incomplete.*—In this case give the horse immediately 500 grammes of sulphate of soda dissolved in four litres of tepid water in which has been incorporated one litre of oil of arachides (earth nut). About ten minutes afterwards give an injection of 5 centigrammes of eserine. I give also about every half-hour 10 litres of salted water (a handful of kitchen salt to 10 litres of water) as an enema, and in such a way that the horse does not throw out the injection until 10 litres have been injected; to accomplish this it is only necessary to pinch the anus between the thumb and index finger each time that one withdraws the pipe of the syringe. These enemas greatly assist the evacuation of the sand on its arrival in the small colon and help purgation and the action of the eserine. Generally three to four hours after these measures have been taken the horse evacuates sand. If it is assumed that the ejection of sand is insufficient, one can renew the purgation six hours afterwards.

The horse being cured, he is submitted for eight hours to a laxative diet with drink at will. If the season and circumstances allow, green food is desirable. Backraking with slight abdominal massage is recommended.

If, in spite of the attention given, the horse does not evacuate sand, and the flank commences to distend, then the case develops into:—

2. *The Obstruction is Complete.*—Sometimes it is rapidly complete from the beginning. In this case before all it is necessary to administer the purgative indicated without, however, having recourse to the eserine. When the obstruction is complete, the horse is given over to certain death; it is in this case that the procedure I am going to indicate is adopted; it has given me six cures out of eight horses treated *in extremis*. This is the way I operate when the horse shows signs of complete obstruction.

XUM

1. Administer the drink of sodium sulphate and oil.

2. Prepare 10 litres of tepid water containing 75 grammes of marine salt. Attach an injector to a piece of indiarubber tubing 2 metres long, and with the tubing of sufficient diameter to adapt itself on to the trocar which serves to puncture the cæcum.

3. Implant the trocar at the site of puncture of the cæcum (selecting the point most dilated by gas one punctures at this place, whether it be occupied by the cæcum or the first portion of the large colon; in cases of sand colic it is generally the colon that one punctures); let a certain quantity of gas escape, so that the flank declines slightly, but one should take care not to let all the gas out, but only sufficient to allow contact to persist between the colon and the wall of the flank.

4. Adapt the tubing to the cannula and let the liquid flow into the colon so that the 10 litres of salted water is all passed in. In this way little chance exists of introducing any fluid into the peritoneum; it is necessary to follow all the movements of the horse with the cannula and to make sure that the trocar is well in the intestine by raising the tubing and noticing whether gas escapes from the cannula.

5. The injection over, the trocar is withdrawn and the puncture point tamponed with tincture of iodine. The horse is then hobbled and thrown on his left side. He is then put in the dorso-lumbar position a little inclined to the left side. One assistant holds his head and another his tail.

6. At this moment one makes an injection of 5 centigrammes of eserine and massages lightly the pelvic flexure through the rectum.

The sand which, as we have seen, is above all dense in the second portion of the colon and does not seem to be able to pass on account of insufficiency of peristaltic movement, is henceforth in a position particularly favourable for its progression. At first it is disintegrated by contact with the injected water; in effect on the standing animal the water arrives at the substernal curvature, and gains the second portion while the horse is down. Afterwards the disintegrated sand progresses little by little into the third portion of the colon under the influence of purgation and of the re-arousing of intestinal contrac-

tions excited by the eserine and by the massage of the pelvic curvature.

7. The horse is left lying on his back for half an hour. When he is released and stands up, tepid water is given which he usually drinks eagerly; his flanks are rubbed and he is walked about, and now and again salted enemas are given.

A short time after borborygmus and expulsion of gas occur, and the obstruction has been overcome. Little by little sand appears two to three hours after intervention, and sometimes even on the morrow. In spite of tardy expulsion of sand, one need not be anxious if one gives drink at will and administers another purgative dose on the morrow.

Laxative diet, salt in the food and coffee (ground) as a stimulant and antidote against intoxication are subsequently indicated. It would be presumptuous to assert that the related procedure will succeed in all cases of sand colic; it, however, appears to us as indicated in grave cases. As this form of colic is frequent in certain regions, I consider it useful to give my colleagues the benefit of my experience.

An observation conducted in collaboration with our colleague M. Descouets makes us believe that the same method of intervention would give excellent results in intestinal obstruction due to impaction.

(*Revue Générale de Médecine Vétérinaire.*)

G.M.

THE NATIONAL HERB-GROWING ASSOCIATION.

This enterprise, made known to the public only in January last, has grown in a manner that may claim to be unprecedented. The membership is now close on 2,000, not including members of affiliated "local centres," which represent some hundreds more.

Members are taught how to grow, to collect, and how to prepare for sale, pack, and so forth.

A drying shed opened at Byfleet early in the spring was, after a very few weeks of use, burnt to the ground, owing to a faulty boiler. With the shed perished sixty pounds worth of the first prepared material. This made it necessary to set members on, for the remainder of this season, drying for themselves.

One hundred tons of drug plants (prepared or fresh, according to order) have been marketed.

Starting with the share of an office, and part time of a

XUM

secretary, there are now five offices, and a staff of ten or twelve paid workers, and much voluntary help is constantly given.

Neither the staff nor the space at command is anything like sufficient for the constantly increasing work.

Lectures and demonstrations have been given in thirty places; many more are being arranged for. Printing of the requisite literature can scarcely get done fast enough to keep pace with the demand. Sixty thousand pamphlets, etc., had been sent out by the middle of October.

It is now necessary to divide up the Society into two sections —a co-operative division, to carry on its trading, and another to advise, organise, lecture, publish and distribute literature.

Information as to the scheme adopted can be had of the Secretary, 20, 21 (6), Queen Anne's Chambers, Westminster.

It must be understood that this work of restoring in Great Britain and Ireland the provision of our own drug herbs is, and must be, carried on as a business, and not a "hobby," as someone wrote lately; not as a sentiment. It was realised by the founders at the outset that, if done at all, it must become (as it has) a national movement, with commercial aims.

From a small beginning, it sprang into growth more rapidly than ever they had anticipated; it has been a hard struggle to cope with a rush of (*a*) members wanting instruction, and clearing up of their mistakes; and (*b*) the demands of druggists and other purchasers. There was no precedent to go on, no patronage given, no grants-in-aid. What has been done arises from sheer hard work, and determination not to be beaten.

The founders knew from the first that presently growers must be found to give acres of land to the cultivation of the necessary herbs; when the war is over, and labour available, this can be achieved; now, thanks are due to any and all who can devote small spaces for the purpose. If it had not been for the good-will and industry of small growers, the hundred tons could never have been supplied as a result of ten months' campaign.

As winter brings a lull in the work of directing growers and collectors, attention will be chiefly directed to lecturing, forming new centres, and preparing to erect drying sheds, of which in time, it is hoped that a sufficient number will be dotted over the country, to provide accessible drying places for all "centres."

A fund is opened for these, to which donations are solicited. More members are sought for the "Association" or educational division, and shareholders for the Co-operative or trading section.

A FOUNDER-MEMBER.

Correspondence.

PARACENTESIS ABDOMINIS.

To the Editor of THE VETERINARY JOURNAL.

SIR,—Just a few lines in criticism of the letter of "Old Practitioner" in your issue of November. He says, "we puncture on *either side*, and just as often as necessary." The wisdom of puncturing on either side in the case of a mare far advanced in pregnancy is not evident. We do not consider that Mr. Bond meant to infer that puncturing the bowel would undo a twist, but that it might cause a twist not to occur. Why does not "Old Practitioner" tell us what twist of the bowel is due to, or what he considers it due to? This might benefit the younger men, and some of us older ones as well. How does "O.P." know that in the majority of his cases "the twist is present from the first"? I think if the majority of practitioners ignore the colic drink idea, they may as well ignore the ledger too. Does "O.P." always find on post-mortem that with his up-to-date methods he has always been treating the disease? If so, then I am of opinion that his experience is different from that of other practitioners.

"MIDDLE-AGED PRACTITIONER."

BOOKS FOR PRISONERS OF WAR.

To the Editor of THE VETERINARY JOURNAL.

DEAR SIR,—Requests continue to reach us from British prisoners of war for books on Veterinary subjects, and you would greatly aid the efforts of my committee if you would be so good as to make, in your next issue, the intimation which I have suggested overleaf, and would invite the co-operation of your readers in securing these books for the benefit of the British prisoners who appeal for them. This is essentially a matter in which it is in the power of the Press to render us great assistance, and I feel sure I may count on your doing what you can to help our work.

—I am, yours truly,

Board of Education, ALFRED T. DAVIS, *Chairman.*

Whitehall, S.W., 23rd November, 1916.

BRITISH PRISONERS OF WAR BOOK SCHEME (EDUCATIONAL).

THE above war charity—the officially recognised medium for providing British prisoners of war with books for purposes of serious study—makes an urgent appeal for works on Veterinary subjects, to meet actual requests received from British prisoners (soldiers, sailors, and civilians) interned in enemy or neutral countries.

Among the special books asked for this week are:—*Breaking and Riding* (Hayes), *Training Young Horses to Jump* (Brooker), *Veterinary Surgery* (any book), and *Horses* (Major Dibble).

Readers who may be able and willing to contribute one or more of the above works to this excellent war charity are invited to forward to Mr. A. T. Davies, at the Board of Education, Whitehall, London, S.W., a list of the books they can offer. They will then be notified as to the acceptance of their gifts. Further particulars of the book scheme may be had on application.

ELECTORAL AND PARLIAMENTARY LEAGUE.

We have received the following letter and circular, which explain themselves.

English Branch of the World League Against
Vivisection and for the Protection of Animals.
123, Elgin Crescent,
London, W., 30th September, 1916.

DEAR SIR,

May we beg the favour of your signing this memorial, which please kindly return in the enclosed envelope.—Yours faithfully,
A. L. WOODWARD.

"To Major-General Sir W. H. Birkbeck, Head of the Army Remount Department.

The undersigned, veterinary surgeons of Great Britain, deplore the terrible sufferings of Army remount horses when picketed in the open during the last two inclement winters—sufferings which have occasioned the loss of many valuable animals, and that by a slow and very painful death through exposure to cold, and consequent pulmonary complaints. And they also deplore the great waste of public money—at a time when the nation needs a most careful husbanding of its resources—involved in the unnecessary deaths of so many valuable animals.

Your memorialists earnestly and respectfully beg that, wherever possible, the picketing of horses in the open may be avoided in inclement weather, and where this is found

impossible that care may be taken that they may be picketed in sheltered places, and that a blanket and waterproof covering may be provided for each horse."

[Needless to write that we have not signed the memorial, because we object to putting our name to statements that are not supported by scientific and actual evidence. We publish them so that our readers may express their opinions on the matter. —G. M.]

ON GETTING RICH QUICKLY.

We have received the following, which has been addressed to one of our English contributors and forwarded on to us. We have his permission to publish it, and think it will amuse our readers.

Offices of R. D. Stockton,
10 and 11, Equitable Building.

DEAR SIR,—Knowing that you are always interested and open for an investment in a good, live business proposition, I take the liberty of presenting to you what seems to me a most wonderful business proposition, and in which, no doubt, you will take a lively interest, and perhaps wire me the amount of stock that you wish to subscribe towards the formation of this company.

The object of this company is to operate a large cat ranch in or near Aurora, where land may be purchased cheap for that purpose.

To start with, we will collect about, say, one hundred thousand cats. Each cat will average twelve kittens a year. The skins run from ten cents each for the white ones to seventy-five cents for the pure black. This will give us twelve million skins a year, to sell at an average of thirty cents apiece, making our revenue about ten thousand dollars a day.

A man can skin fifty cats a day for two dollars. It will take one hundred men to operate the ranch, and, therefore, the net profit will be about nine thousand eight hundred dollars a day.

We will feed the cats on rats, and will start a rat ranch next door. The rats multiply four times as fast as the cats. If we start with one million rats, we will have, therefore, four rats per day for each cat, which is plenty.

Now, then, we will feed the rats with the carcases of the cats from which the skins have been taken, giving each rat a fourth of a cat.

It will thus be seen that the business will be self-acting and automatic all the way through. The cats will eat the rats and the rats will eat the cats, and we will get the skins.

Awaiting your prompt reply, and trusting that you appreciate the opportunity that I give you, which will get you rich very quickly.—I remain, very truly yours,

R. D. STOCKTON.

Denver, Colorado.

Reviews.

Veterinary Report, 1915: *Ceylon*. By G. W. Sturgess, M.R.C.V.S., Govt. Veterinary Surgeon.

THE résumé of the infective diseases in Ceylon shows that the veterinary wants of the island are being well looked after by Mr. Sturgess and his staff. An outbreak of anthrax occurred in the police horses, but the case was limited to one horse, which lived for four days (a rather lengthy period). Rinderpest showed a marked decrease in number of outbreaks. There were over 2,300 cases of foot-and-mouth disease, of which only 2 per cent. died. Economically, treatment of the epidemic seems to have paid well. A bull treated for surra with sodium arsenate made a good recovery.

A peculiar epidemic among swine caused heavy losses. The disease did not appear to be either swine fever or swine erysipelas, but an acute septicæmia and toxæmia of the nature of swine plague. The fatalities were 90 to 100 per cent. Among dairy cattle a cancerous horn disease was noticed. The cows were never yoked, so this supposed cause of the ailment was barred out. Amputation of the horn in the early stages is the only chance of successful treatment, and early slaughter of affected animals is recommended.

Sarcoptic mange in goats caused some trouble, but was eradicated by dipping in a solution of Izal (1 oz. to the gallon of water), and afterwards dressing with a mixture of kerosene, sulphur and coco-nut oil.

The Report seems to show that veterinary operations in Ceylon are well conducted and of great value to the Island.

G.M.

Report of the Chief Veterinary Surgeon of Southern Rhodesia for the year 1915.

MR. J. M. SINCLAIR, M.R.C.V.S., sends us his Annual Report on the infective diseases in this region. African Coast Fever has been very prevalent during the year. The Compulsory Dipping Ordinance was petitioned for by cattle owners, but it could not be promptly put into force, and energetic measures by which 60 dipping tanks were put up in a short space of time

helped materially in getting the outbreak under. The effects of dipping were nullified in some districts by the heavy rainfalls, and the Chief suggests that sheds wherein the cattle could be detained until dry would be helpful. The heavy rains and insufficient protection of calves caused severe losses in the herds. In one herd of cattle the twisted stomach worm (Hæmonchus contortus) caused 250 deaths. No cases of tuberculosis occurred during the year. The mortality among horses from horse-sickness was the heaviest for many years, but mules suffered to a much less degree, due to immunisation by the Theiler method. Blue tongue among sheep caused severe losses in the eastern districts. Cattle from Northern Rhodesia were prohibited from coming into the Southern area as contagious pleuro-pneumonia was rife in the former area, and thus the prohibition originally imposed on account of the uncertainty of the rinderpest position in German East Africa had to be continued. The Report tells of a large amount of work well done, and the control of a big territory has evidently been by no means an easy task. G.M.

The Rhodesia Agricultural Journal. Edited by the Director of Agriculture, assisted by the staff of the Agricultural Department. October, 1916. 5s. per annum. Published bi-monthly. Printed by the Argus P. and P. Co., Ltd., Salisbury, Rhodesia.

Mr. L. E. W. Bevan, M.R.C.V.S., Government Veterinary Bacteriologist for Southern Rhodesia, sends us a copy of this very useful agricultural journal. Some cattle feeding experiments undertaken by Mr. R. C. Simmons show that feeding and grazing may be advantageously combined from the time the grass reappears until May, but when frost comes there is a loss in partial grazing. A five months' period of feeding was more profitable than a six and a half months' time. A saving was effected by using cheaper foods and avoiding mangels. Maize, various kinds of hay, majorda melons, and ground nuts were among the substances used.

Experiments in the production of new crops for Rhodesia have been undertaken by J. A. T. Walters, B.A., and the importance of his work cannot be over-estimated.

Mr. Bevan contributes the first portion of an interesting article on " Immunity in its Relation to the Stock Diseases of Southern

XUM

Rhodesia." The article is simply written, with homely instances given of nature's means of resisting disease as applied to the province. A very clear resumé is also given of the history of immunity.

The Veterinary Report shows that four cases of tuberculosis in cattle were notified from the Johannesburg abattoirs. No cases of glanders were found in imported horses and mules. Plasmosis inoculation on five bulls received from Great Britain was conducted, and the animals were discharged; twenty-four horses, the property of the B.S.A. Police, were inoculated against horse-sickness. Progress seems to have been achieved against African coast fever, and in several of the districts no fresh outbreaks were recorded. The report furnished by the Chief Veterinary Surgeon, Mr. J. M. Sinclair, is a short account of valuable work efficiently carried out.

G. M.

Journal of the Royal Army Medical Corps, edited by Colonel W. H. Horrocks, K.H.S., assisted by Colonel D. Harvey, R.A.M.C. Issued monthly. Printed by Bale, Sons, & Danielsson, Ltd., 83-91, Great Titchfield Street, Oxford Street, W. Price 2s. monthly net.

As a medical periodical, this journal keeps up to the high character and interesting nature of previous issues. It is full of articles which are instructive, and written by authors that seem to take a pride and pleasure in their work. However scanty clinical records from the front are in veterinary fields, those who look after the health and wounds of our soldiers seem to have no difficulty in supplying very readable accounts of what they are doing.

Albert E. Morison, F.R.C.S., and Lieutenant W. J. Tulloch, R.A.M.C., contribute a well-illustrated article on "The Treatment of wounds in War by Magnesium Sulphate." The solution of Mag. Sulph. is made by dissolving forty ounces of $MgSO_4$ (by weight) in ten ounces of glycerine, and boiling water sufficient to make a Winchester quart by measure. The glycerine must be added slowly while the solution is hot, and stirred gently, or the salt precipitates on cooling. The solution is then sterilised in an autoclave, and is ready for use. It is not advised to use this solution as a first dressing to fresh wounds, but only after swabbing the wounded surface with pure carbolic acid and pack-

ing it for twenty-four hours with gauze wrung out in a lotion of (1 in 20) carbolic acid. Where $MgSO_4$ is used "lymph lavage" is most satisfactorily produced, and fomentations with this agent only need renewal twice daily, a great advantage where asepticism and little pain is desired. Nephritis was very prevalent in the British troops in Flanders in spring and summer of 1915. A remarkable feature of the outbreak was that the Indian troops escaped almost entirely. Bronchitis and dropsy were shown as complaints accompanying the nephritis. The mortality was low, and Sir John Rose Bradford, who is the author of the paper on this subject, considers that clinically the malady is a distinct nephritis. A specially interesting contribution is that by Lieutenant-Colonel Barron, M.V.O., on "Physical Training with reference to Convalescents." The aspect of the question that confronts us is well indicated by the writer in the following words: "Morally and economically it will be our duty to cure completely as many of them as possible. It will take perhaps a year or more, during which time the patient should remain under military discipline, and should receive proper treatment, carried out on a scientific basis under a system to be laid down. The tendency will be to let the men drift back into civil life, in order to save expense." The Colonel gives the four essentials of physical training as pleasure, exercise, balance, and rest. He has a good word to say for the game of Ballee or Gusto for convalescents. This paper is a very valuable one at the present time, and might be studied with advantage by all superintendents of hospitals who have to advise convalescents.

Other profitable reading matter may be found in "Experiences of Twelve Months X-Ray Work in France," "Gunshot Wound of Pericardium and Heart," and "Acute Hodgkins Disease," which by its vagaries puzzled the faculty.

Those who like to read of the work of mercy and the difficulties and adventures in carrying it out will be greatly interested in the moving narrative of how No. 3. General Hospital mobilised and travelled, had a somewhat chequered career, and finally reached a haven of joy and content. Colonel S. F. Clark, A.M.S., who contributes the tale, has a facile and ready pen, and his description of the progress of the hospital is most interesting reading.

G. M.

XUM

THE LATE CAPTAIN H. C. LOWRY.

It is with deep regret we place on record a further loss sustained by the Veterinary Department in the death of Mr. H. C. Lowry, M.R.C.V.S., who died in Mesopotamia recently. Mr. Lowry entered the Service in February, 1913. He was at the time a member of the Special Reserve of Officers, Army Veterinary Corps. When the war broke out, he was on African coast fever duty in the Melsetter district, and was shortly afterwards recalled by the military authorities. He was present at the landing in Gallipoli, and served throughout that campaign, during which he had a very narrow escape, when a box he was sitting on was shot from under him by a shell. The following day he received a slight bullet wound in the arm, but not sufficient to interfere with duty. Early this year he was sent to Mesopotamia. A few days before the cable news of his death arrived, the Chief Veterinary Surgeon received a letter from Captain Lowry, in which he gave an interesting account of the conditions obtaining in Mesopotamia, some technical details of his professional work with the Army, and sent affectionate messages to his many Rhodesian friends. He concluded that letter with a wish that the war was over, and that he "was back to the land of sunshine and fruit." Mr. Lowry, who was promoted captain some months before his death, was well known in Rhodesia, especially in Bulawayo district. He was very keen on his work, and his death is felt as a great loss to the Department.—*Rhodesia Agricultural Journal.*

"WELLCOME" BACILLUS ABORTUS VACCINE.

This vaccine, originally issued in bottles of 25 c.c. containing 100,000 million organisms in each c.c., is now obtainable in phials containing 100,000 million organisms in 5 c.c., 250,000 million organisms in 5 c.c., and 500,000 million organisms in 5 c.c.

Note—All communications should be addressed to 8, Henrietta Street, Covent Garden, London, W.C. Telephone, 4646 Gerrard. Telegrams, "Baillière, London."

Letters for the Journal, literary contributions, reports, notices, books for review, exchanges, new instruments or materials, and all matter for publication (except advertisements) should be addressed to the Editors.

Manuscript—preferably typewritten—should be on one side only of paper, marked with full name of author.

Illustrations for reproduction should be in good black or dark brown ink on white paper or card.

Advertisements and all business matters relating to the Journal should be addressed to the publishers, Messrs. Baillière, Tindall and Cox.

XUM